

What is claimed is:

1. A process for decreasing the surface density of a porous precursor film, the process comprising stripping a portion of at least one surface layer from the precursor film by applying
5 a shearing force thereto, wherein the precursor film comprises a polymer selected from the group consisting of polyethylene, polypropylene, polyvinylidene, and polyvinylidene halides.

2. The process of claim 1 wherein substantially all of at least one surface layer is stripped from the precursor film.

3. The process of claim 1 wherein a portion of both surface layers of the precursor film are stripped therefrom.

4. The process of claim 1, wherein the process comprises:

(a) attaching a first anchor to a major surface of the precursor film; and
5 (b) applying a first shearing force to the major surface via the first anchor to remove at least a portion of a first surface layer from the precursor film.

5. The process of claim 4, wherein the removed portion of the first surface layer is associated with the major surface.

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6. The process of claim 4, wherein the first shearing force is applied at a substantially constant angle relative to the plane of the precursor film.

7. The process of claim 4, wherein the first shearing force is applied at an angle of 90° or less from the plane of the precursor film.

8. The process of claim 4, wherein the process is carried out in a reel-to-reel process in which:

- 5 (a) the precursor film is transferred from a feed roller to a collection roller;
- (b) the first anchor is associated with a first stripping roller; and
- (c) the first shearing force is applied by the first stripping roller.

9. The process of claim 4, further comprising:

- 5 (c) attaching a second anchor to the opposing major surface of the precursor film; and
- (d) applying a second shearing force via the second anchor to the opposing major surface to remove at least a portion of a second surface layer from the precursor film.

10. The process of claim 9, wherein the at least a portion of the second surface layer is associated with the opposing major surface.

11. The process of claim 9, wherein the first and second shearing forces are applied simultaneously.

12. The process of claim 9, wherein the process is carried out in a reel-to-reel process in which:

- 5 (a) the precursor film is transferred from a feed roller to a collection roller;
- (b) the first anchor is associated with a first stripping roller;
- (c) the first shearing force is applied by the first stripping roller;
- 10 (d) the second anchor is associated with a second stripping roller; and
- (e) the second shearing force is applied by the second stripping roller.

13. The process of claim 12, wherein the first and second anchor are the same, and the first and second stripping rollers are the same.

14. The process of claim 1 wherein the precursor film comprises a copolymer.

15. The process of claim 1 wherein the precursor film comprises a polymer selected from the group consisting of polyethylene, polypropylene and ethylene-propylene copolymers.

16. The process of claim 1 wherein the precursor film comprises ultra-high molecular weight polyethylene.

17. The process of claim 1 wherein the precursor film is microporous.

18. A process for making a stripped porous polymer film comprising mechanically stripping a portion of at least one surface layer from a heterogeneous precursor film, wherein the precursor film is made by a process comprising the steps of:

- (a) forming a solution comprising a polyalkene into a film containing a solvent;
- (b) cooling the resulting film to below the gelling point of the solution;
- (c) removing the solvent to yield a substantially solvent-free film; and
- (d) stretching the film in at least one direction.

19. A process for making a stripped porous polymer film comprising mechanically stripping a portion of at least one surface layer from a

precursor polymer film comprising a polyalkene and
5 having surface characteristics that are different
from the characteristics of the interior bulk
material, thereby decreasing the surface density
of the stripped film relative to the precursor
film.

20. A process for making a stripped porous
polymer film comprising mechanically stripping a
portion of at least one surface layer from a
precursor polymer film comprising a polyalkene and
having surface characteristics that are different
from the characteristics of the interior bulk
material, thereby increasing the rate of
transplanar wicking of the stripped film relative
to the precursor film.

21. A process for making a stripped porous
polymer film comprising mechanically stripping a
portion of at least one surface layer from a
precursor polymer film comprising a polyalkene and
having surface characteristics that are different
from the characteristics of the interior bulk
material, thereby decreasing the Gurley number of
the stripped film relative to the precursor film.